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# A New Species of *Zapoteca* (Leguminosae, Mimosoideae) from Mexico

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**ABSTRACT.** *Zapoteca sousae* (Leguminosae, Mimosoideae), a new species from Oaxaca and Colima, Mexico, is described and illustrated. It appears to be closely related to the widespread and highly variable *Zapoteca portoricensis*, from which it differs primarily by stipule, flower, and leaf characters.

**RESUMEN.** Se describe e ilustra *Zapoteca sousae* (Leguminosae, Mimosoideae), una especie nueva de Oaxaca y Colima, México. Esta especie parece estar íntimamente relacionada con *Z. portoricensis*, de la cual difiere principalmente en caracteres de las estípulas, flores, y hojas.

*Zapoteca* H. Hernández (Leguminosae, Mimosoideae, tribe Ingeae) is a genus of neotropical shrubs recently segregated from *Calliandra* (Hernández, 1986). According to Hernández (1989, 1990), it comprises 18 species and 11 subspecies grouped into five subgenera. The highest concentration of taxa is in southern Mexico, particularly in the states of Oaxaca and Chiapas.

During a floristic survey of a small portion of the Sierra Madre del Sur, being carried out by A. Campos (en prep.), the following new species was found. We take pleasure in naming it in honor of Mario Sousa Sánchez, in acknowledgment of his important contributions to our knowledge of the Mexican Leguminosae, particularly those of the State of Oaxaca.

***Zapoteca sousae*** H. Hernández & A. Campos, sp. nov. TYPE: Mexico. Oaxaca: Distr. Miahuatlán, Mpio. San Jerónimo Coatlán, 29 km al SO de San Jerónimo Coatlán, brecha a Piedra Larga, 16°11'N, 96°59'W, 1,500 m, 12 jul. 1992, A. Campos V. 4765 (holotype, MEXU; isotypes IEB, MEXU, MO, XAL). Figure 1.

Frutices erecti, caulibus gracilibus. Stipulae foliaceae, caducae, juveniles lanceolatae, maturantes conspicue cordiformes, apice acutae vel cuspidatae, 26 mm usque longae, basi 17 mm latae, parallelinerviae. Calycis dentes inaequales, lineari-lanceolati vel lanceolati, acuti, 1.5–4 mm longi. Corolla infundibularis, 7–8.5 mm longa.

Erect shrubs, to 3 m tall; stems slender, to 1.3 cm diam. at the base; branchlets terete, costate under magnification, villous to densely villous with

tawny hairs, especially apically. Leaves with petiole (1.5–)3–6.7 cm long; rachis 11–16.5 cm long; pinnae (5–)7–11-jugate, with rachilla 5–10 cm long; leaflets 18–33 pairs per pinna, narrowly oblong, the proximal ones cuneate at the base, becoming obliquely truncate proximally, acute at the apex, mucronate, 5.5–13 × 1–2.5 mm, the proximal ones smaller, mostly glabrous, but with a few white hairs at the base of the abaxial surface, ciliate, membranous, venation pattern visible superficially. Stipules foliaceous, caducous, lanceolate when young, becoming conspicuously cordiform, acute to cuspidate at the apex, to 26 mm long, 17 mm wide at the base, sparsely villous with tawny hairs, membranous, parallel-veined. Capitula axillary, peduncles fasciculate, slender, 2.8–5.5 cm long at anthesis, villous. Flowers pentamerous, each subtended by a lanceolate, 3–6 × 1–2 mm, sparsely villous bract; calyx campanulate, 3–6 mm long, green, glabrous, the teeth linear-lanceolate to lanceolate, acute, 1.5–4 mm long, unequal; corolla infundibular, 7–8.5 mm long, greenish white, glabrous, the lobes lanceolate, 4–4.5 mm long; filaments 3.5–4 cm long, white, the staminal tube 2–3 mm long; ovary ca. 1.5–3 mm long, glabrous; stigma cup-shaped. Pods elastically dehiscent, linear, straight before dehiscence, the apex rounded or acute, rostellate, to 12 × 0.8 cm when mature, thickly membranous, glabrous. Seeds broadly rhomboid, 6 × 4–5 mm, dark brown, the areola mottled; pleurogram irregular.

*Distribution and habitat.* Known only from two widely disjunct localities in Oaxaca and Colima, Mexico. In Oaxaca it appears to be restricted to undisturbed sites with montane mesophyllous forest (sensu Rzedowski, 1978).

*Zapoteca sousae* is closely allied to *Z. portoricensis* (Jacquin) H. Hernández, particularly to its subspecies *portoricensis*. It can be distinguished from this taxon, and from the remaining members of the genus, primarily by its characteristic stipules and by its calyx with unequal teeth (Fig. 1), features which appear to be unique in the genus. Additional distinguishing features of the Oaxacan population of *Z. sousae* are the numerous pairs of pinnae, and the longer petiole and rachis. The specimen from





Figure 1. *Zapoteca sousae* H. Hernández & A. Campos. —A. Branchlet with inflorescences at anthesis. —B. Flower. —C. Dissected calyx. —D. Pods. —E. Seed. (A–C from A. Campos 4765, MEXU; D, E from A. Campos & I. Calzada 4922, MEXU.)



Colima has smaller leaf characters, approaching those of the typical *Z. portoricensis*.

*Zapoteca sousae* has been collected in the same area as *Z. portoricensis* subsp. *portoricensis* (*E. Martínez et al.* 2544); however, these two taxa are not known to grow side by side, and no morphologically intermediate individuals have been detected. The known populations of *Z. sousae* appear to be restricted to undisturbed ravines, whereas the Mexican representatives of *Z. portoricensis* subsp. *portoricensis* usually grow in secondary habitats derived from montane mesophyllous forests.

*Paratypes.* MEXICO. **Oaxaca:** Distr. Miahuatlán, Mpio. San Jerónimo Coatlán, 29 km al SO de San Jerónimo Coatlán, brecha a Piedra Larga, 16°11' N, 96°59'

W, alt. 1,500 m, *A. Campos & I. Calzada* 4922 (MEXU). **Colima:** Paso del Río, *G. M. Emrick* 244 (F).

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